

REMARKS

Claims 1-34 are pending in the case. Claims 1-5, 8-10, 12, 14, 17-20, 23, 25, 27-29, 31 and 33-34 are rejected. Claims 6-7, 11, 13, 15, 16, 21, 22, 24, 26, 30 and 32 are objected to as being dependent upon a rejected base claim but are allowable if rewritten in independent form. Applicant has amended the specification to update a reference to a related case. Reconsideration is respectfully requested.

Applicant respectfully requests the Examiner to **select Figure 10 for the front page of any patent to be granted on the instant application.**

Drawings Objections

The Examiner has objected to Figures 1, 2, 3, 4 and 6 of the drawings indicating that a "Prior Art" legend should be included in each of the figures. Figures 1, 2, 3, 4 and 6 have been amended to include the "Prior Art" legend as required by the Examiner. Replacement sheets for Figures 1, 2, 3, 4 and 6 are attached herewith. Withdrawal of the drawing objection is respectfully requested.

Double Patenting Rejections over U.S. Patent 6,518,909

The Examiner has rejected claims 1-5, 8-10, 12, 14, 17-20, 23, 25, 27-29 and 31 under the judicially created doctrine of double patenting over claims 1-17 of U.S. Patent 6,518,909 ("the '090 patent") (Office Action, p. 3). The '090 patent and the present patent application are commonly owned.

The Examiner contends that the subject matter claimed in the instant application is fully disclosed in the prior '090 patent and is covered by the prior '090 patent since the prior patent and the present application are claiming common subject matter. The Examiner further states that:

...although the conflicting claims are not identical, they are not patentably distinct from each other because the patent 6,518,909 teaches essentially the same circuit as claims 1-5, 8-10, 12, 14, 17-20, 23, 25, 27-29 and 31 of the instant application. Even though claims are broadened by omitting certain limitations, it has been held that the omission of an element and its function is an obvious expedient if the remaining element performs the same function as before. (Office Action, p. 3, citing In re Karlson.)

Applicant submits that the double patenting rejection is only applicable to claims 25, 27 and 28 claiming subject matter that are disclosed in the prior '909 patent. However, Applicant respectfully submits that the claimed subject matter in independent claims 1, 12 and 29, and the associated dependent claims, are not fully disclosed in the prior '909 patent. Therefore, independent claims 1, 12 and 29, and the associated dependent claims, are not covered by the prior '090 patent and the double patenting rejection as to these claims is improper.

With respect to claim 1, the claim recites "said comparator comprising a multiplexor coupled to a plurality of **differential pairs**, each differential pair coupled to a respective one of said plurality of analog input signals, said multiplexor **selecting one of said plurality of differential pairs** based on said plurality of input select signals..." (emphasis added). The subject matter of using "a plurality of differential pairs" in the comparator is not disclosed in the prior '090 patent. In claim 1 of the '909 patent, the comparator includes "a multiplexer coupling said plurality of analog input signals to a plurality of corresponding **input signal paths**, said multiplexer **selecting one of said plurality of input signal paths** based on said input select signal..." (emphasis added). The limitation of "a plurality of differential pairs" is not disclosed in the prior '909 patent and is not claimed in the prior patent.

With respect to claim 12, the claim recites "said comparator comprising a multiplexor coupled to a plurality of **differential pairs**, each differential pair coupled to a respective one of said plurality of analog input signals, said multiplexor **selecting one of said plurality of differential pairs** based on said plurality of input select signals..." (emphasis added). For the same reasons stated above with reference to claim 1, the claimed subject matter of claim 12 is not disclosed in the prior '090 patent.

With respect to claim 29, the claim recites "a comparator having a first input terminal coupled to receive a **first reference signal**... said **comparator compares said first reference signal with a selected one of said plurality of analog input signals** to generate said output signal..." (emphasis added). The limitation of using "a first reference signal" in the comparator is not disclosed in the prior '909 patent and therefore, is not claimed in the prior patent.

Because the claimed subject matter in independent claims 1, 12 and 29 are not disclosed in the prior '909 patent, claims 1, 12 and 29 and the associated dependent claims do not claim the same subject matter as claims 1-17 of the '909 patent. Therefore, the double patenting rejections as to claims 1-5, 8-10, 12, 14, 17-20, 23, 29 and 31 are improper.

Withdrawal of the double patenting rejection of claims 1-5, 8-10, 12, 14, 17-20, 23, 29 and 31 is respectfully requested.

Nevertheless, for the purpose of overcoming the double patenting rejection of claims 25, 27 and 28, Applicant submits herewith a terminal disclaimer in compliance with 37 CFR 1.321(c).

Double Patenting Rejections over U.S. Patent 6,310,571

The Examiner has rejected claims 1-5, 8-10, 12, 14, 17-20, 23, 25, 27-29, 31 and 33-34 under the judicially created doctrine of double patenting over claims 1-17 of U.S. Patent 6,310,571 ("the '571 patent") (Office Action, p. 4). The '571 patent and the present patent application are commonly owned.

The Examiner contends that the subject matter claimed in the instant application is fully disclosed in the prior '571 patent and is covered by the prior '571 patent since the prior patent and the present application are claiming common subject matter. The Examiner further states that:

...although the conflicting claims are not identical, they are not patentably distinct from each other because the patent 6,518,909 teaches essentially the same circuit as claims 1-5, 8-10, 12, 14, 17-20, 23, 25, 27-29, 31 and 33-34 of the instant application. Even though claims are broadened by omitting certain limitations, it has been held that the omission of an element and its function is an obvious expedient [sic] if the remaining element performs the same function as before. (Office Action, p. 4, citing In re Karlson.)

Applicant submits that the double patenting rejection is only applicable to claims 25, 27 and 28 claiming subject matter that are an obvious variant of the claimed subject matter of the prior '571 patent. However, Applicant respectfully submits that the claimed subject matter in independent claims 1, 12, 29, 33 and 34, and the associated dependent claims, are not fully disclosed in the prior '571 patent and therefore, the claims are not covered by the prior '571 patent.

With respect to claim 1, the claim recites "said comparator comprising a multiplexor coupled to a plurality of **differential pairs**, each differential pair coupled to a respective one of said plurality of analog input signals, said multiplexor **selecting one of said plurality of differential pairs** based on said plurality of input select signals..." (emphasis added). The subject matter of using "a plurality of differential pairs" in the comparator is not disclosed in

the prior '571 patent. In claim 1 of the '571 patent, the comparator includes "a multiplexer coupling said plurality of analog input signals to a plurality of corresponding **input signal paths**, said multiplexer **selecting one of said plurality of input signal paths** based on said input select signal..." (emphasis added). The limitation of "a plurality of differential pairs" is not disclosed in the prior '571 patent and is not claimed in the prior patent.

With respect to claim 12, the claim recites "said comparator comprising a multiplexor coupled to a plurality of **differential pairs**, each differential pair coupled to a respective one of said plurality of analog input signals, said multiplexor **selecting one of said plurality of differential pairs** based on said plurality of input select signals..." (emphasis added). For the same reasons stated above with reference to claim 1, the claimed subject matter of claim 12 is not disclosed in the prior '571 patent.

With respect to claim 29, the claim recites "a comparator having a first input terminal coupled to receive a **first reference signal**... said **comparator compares said first reference signal with a selected one of said plurality of analog input signals** to generate said output signal..." (emphasis added). The limitation of using "a first reference signal" in the comparator is not disclosed in the prior '571 patent and is not claimed in the prior patent.

With respect to claim 33, the claim recites "coupling said plurality of analog input signals to a **corresponding plurality of differential pairs** in a comparator..." (emphasis added). For the same reasons stated above with reference to claim 1, the claimed subject matter of claim 33 is not disclosed in the prior '571 patent.

With respect to claim 34, the claim recites "coupling said plurality of analog input signals to a **corresponding plurality of differential pairs** in a comparator ..." (emphasis added). For the same reasons stated above with reference to claim 1, the claimed subject matter of claim 34 is not disclosed in the prior '571 patent.

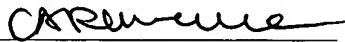
Because the claimed subject matter in independent claims 1, 12, 29, 33 and 34 are not disclosed in the prior '571 patent, claims 1, 12, 29, 33 and 34 and the associated dependent claims do not claim the same subject matter as claims 1-17 of the '571 patent. Therefore, the double patenting rejections as to claims 1-5, 8-10, 12, 14, 17-20, 23, 29, 31 and 33-34 are improper. Withdrawal of the double patenting rejection of claims 1-5, 8-10, 12, 14, 17-20, 23, 29, 31 and 33-34 is respectfully requested.

Nevertheless, for the purpose of overcoming the double patenting rejection of claims 25, 27 and 28, Applicant submits herewith a terminal disclaimer in compliance with 37 CFR 1.321(c).

CONCLUSION


Claims 1-34 are pending in the present application. A terminal disclaimer for U.S. Patent 6,518,909 and a terminal disclaimer for U.S. Patent 6,693,575 are submitted herewith for the purpose of overcoming the double patenting rejection of claims 25, 27 and 28. For the reasons stated above, the double patenting rejections as to claims 1-5, 8-10, 12, 14, 17-20, 23, 29, 31 and 33-34 are improper. Withdrawal of the double patent rejections of claims 1-5, 8-10, 12, 14, 17-20, 23, 29, 31 and 33-34 is respectfully requested. If the Examiner would like to discuss any aspect of this application, the Examiner is invited to contact the undersigned at (408) 382-0480.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 20, 2004.


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4/20/2004
Date of Signature

Respectfully submitted,



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